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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/552,423	04/19/2000	Ravishankar Rao	YOR-9-2000-0133-US1	2841

7590 07/03/2002

IBM Corporation
Intellectual Property Law Department
P O Box 218
Yorktown Heights, NY 10598

EXAMINER

KUMAR, SRILAKSHMI K

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 07/03/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

13

Office Action Summary

Application No.

09/552,423

Applicant(s)

RAO ET AL.

Examiner

Srilakshmi K. Kumar

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 12-17 is/are rejected.
- 7) ☒ Claim(s) 9-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 1-8, 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Tai et al. (US 6,411,745).

As to independent claim 1, Tai et al disclose a method for transforming a digitized image, said method comprising, providing said image as a plurality of pixels, wherein data for each pixel is in a first format (Fig. 1, image into the input scanner, 10, and col. 2, lines 59-63, and col. 3, lines 17-20); and halftoning said data of each of said pixels by employing data from a region of interest which includes at least one pixel following said each of said pixels and producing a second format for said image (Fig. 1, col. 3, lines 6-40).

As to dependent claim 2, limitations of claim 1, and further comprising wherein the region of interest includes a plurality of neighboring pixels (Figs. 3-5).

As to dependent claim 3, limitations of claim 2, and further comprising wherein the neighboring pixels form a symmetrical pixel array surrounding said each of said pixels (Figs. 3-5).

Art Unit: 2675

As to dependent claim 4, limitations of claim 3, and further comprising wherein the symmetrical pixel array forms a square (Figs. 3-5).

As to dependent claim 5, limitations of claim 1, and further comprising using said second format for an output device (Fig. 1,); Tai et al disclose in Fig. 1 and col. 2, line 59-col. 3, line 16, where an image is scanned into the input scanner (10) and then is manipulated (12), and then rendered (16) for the output device (18).

As to dependent claim 6, limitations of claim 5, and further comprising wherein said output device is a printer (col. 3, lines 9-16).

As to dependent claim 7, limitations of claim 1, and further comprising determining a dynamic range of pixel values of pixels in an encompassing neighborhood of the region of interest, and wherein the step of halftoning includes making dynamic adjustments depending on the dynamic range of pixel values (Fig. 2, and col. 3, line 41-col. 5, line 4).

As to dependent claim 8, limitations of claim 7, and further comprising wherein the step of making dynamic adjustments includes producing a visually pleasing transition between text and picture area in said image (col. 6, lines 3-22).

As to dependent claim 12, limitations of claim 1, and further comprising, a computer usable medium having computer readable program code means embodied therein for causing a digital image to be transformed (col. 3, lines 1-5).

As to dependent claim 13, limitations of claim 1, and further comprising, a program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for transforming a digitized image (col. 3, lines 1-5).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tai et al (US 6,411,745).

As to independent claim 14, a method for halftoning at least a portion of an image, the method comprising employing a first rule of halftoning and a second rule of halftoning.

Although Tai et al doesn't explicitly state the first and second rules of halftoning, it would have been obvious to one of ordinary skill in the art that the rules of halftoning would be incorporated into that of Tai et al, as the system uses scanned images which include text and images, and the different halftoning rules would be used in order to output a clear grayscale image.

As to dependent claim 15, limitations of claim 14, and further comprising employing a third and fourth rule of halftoning; Although Tai et al doesn't explicitly state the third and fourth rules of halftoning, it would have been obvious to one of ordinary skill in the art that the rules of halftoning would be incorporated into that of Tai et al, as the system uses scanned images which include text and images, and the different halftoning rules would be used in order to output a clear grayscale image.

As to claims 16 and 17, see claims 12 and 13, above.

Art Unit: 2675

Allowable Subject Matter

4. Claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label

“PROPOSED” or DRAFT”)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive,

Arlington, VA, Sixth Floor (Receptionist)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srilakshmi K. Kumar whose telephone number is 703 306 5575.

The examiner can normally be reached on 8:00 am to 4:30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven J. Saras can be reached on 703 305 9720. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9314 for regular communications and 703 308 9051 for After Final communications.

Art Unit: 2675

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 4700.

Srilakshmi K. Kumar
Examiner
Art Unit 2675

SKK
June 29, 2002



STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600